IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Nortel Networks Limited

Application No.: 10/733,344 Group: 2664

Filed: December 12, 2003

Examiner: Ramnandan P. Singh

For: METHOD AND APPARATUS FOR DIALING FROM A DIRECTORY FOR A COMMUNICATION TERMINAL

APPELLANT'S SUPPLEMENTAL BRIEF ON APPEAL

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O.Box 1450
Alexandria, VA 22313-1450

Sir:

This Supplemental Appeal Brief is submitted in response to the Notice of Defective Appeal Brief issued by the Examiner on June 23, 2006. The Applicant respectfully submits that this Supplemental Appeal Brief complies with all requirements of 37 C.F.R. 41.37 and addresses the Examiner's objections outlined in the Notice of Defective Appeal Brief.

An Appeal Brief was submitted by the Applicant on April 13, 2006 pursuant to the Notice of Appeal received in the U.S. Patent and Trademark Office on February 16, 2006, and in support of the appeal from the final rejection(s) set forth in the Office Action mailed on October 19, 2005. The fee for filing a brief in support of an appeal was enclosed with the Appeal Brief submitted on April 13, 2006. One June 23, 2006, the Examiner issued a Notice of Defective Appeal Brief and requested a supplemental brief within one month.

In the Applicant's respectful submission no fees are due in connection with the filing of this Supplemental Appeal Brief. If the Applicant is mistaken, the Commissioner is hereby authorized to deduct any fees required and, in particular, any extension of time fees from deposit account no. 13-2400.

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I. REAL PARTY IN INTEREST

The real party in interest is Nortel Networks Limited, 2351 Boulevard Alfred-Nobel, St. Laurent, Quebec, H4S 2A9, Canada. Nortel Networks Limited is the Assignee of the entire right, title and interest in the subject application, by virtue of an Assignment recorded on March 10, 2004 at Reel 015054, Frame 0873.

II. RELATED APPEALS AND INTERFERENCES

Appellant, the undersigned Agent, and Assignee are not aware of any related appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 21 to 40 remain pending in the application. Claims 21, 30, and 37 are in independent form. Claims 21 through 40 stand finally rejected under 35 U.S.C. § 103(a). A copy of the pending claims as they stood upon final rejection is attached as Claims Appendix.

IV. STATUS OF AMENDMENTS

Two papers have been filed subsequent to the Final Rejection. The first paper is an Amendment after Final Rejection under 37 C.F.R. 1.116, which was delivered under Certificate of Facsimile Transmission on December 21, 2005. This amendment was not entered by the Examiner. The second paper was a Notice of Appeal received in the U.S. Patent and Trademark Office on February 16, 2006.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Claim 21 is an independent claim to an apparatus for dialing a communication terminal. The apparatus comprises a memory for storing a plurality of directory entries corresponding to a plurality of communication terminals; an input for entering a string of alphanumeric digits corresponding to one of the plurality of communication terminals; a comparator for comparing the string, as each digit is entered, to the plurality of directory entries; a display for displaying one or more matching directory entries as each digit is entered; a selector component for selecting one of the matching directory entries; and a dialer component for dialing the communication terminal corresponding to the selected entry. Support for independent claim 21 is found throughout the specification, and in particular, at pages 4-12 of the specification and in the Figures, as originally filed.

Claim 30 is an independent claim to a method for dialing a communication terminal. The method comprises the steps of storing a plurality of directory entries corresponding to a plurality of communication terminals; entering a string of alphanumeric digits corresponding to one of the plurality of communication terminals; comparing the string, as each digit is entered, to the plurality of director entries; displaying one or more matching directory entries as each digit is entered; selecting one of the matching directory entries; and dialing the communication terminal corresponding to the selected entry. Support for independent claim 30 is found throughout the specification, and in particular, at pages 4-12 of the specification and in Figures 2-4, as originally filed.

Claim 37 is an independent claim to a system for dialing a communication terminal. The system comprises means for storing a plurality of directory entries corresponding to a plurality of communication terminals (e.g., database server 22 of Fig. 1; directory arrangement 300 of Fig. 3; Fig. 4); means for inputting a string of alphanumeric digits corresponding to one of the plurality of communication terminals (e.g., Internet telephones 16 of Fig. 1); means for comparing the string, as each digit is entered, to the plurality of directory entries (e.g., signaling servers 1

and 2 of Fig. 1); means for displaying one or more matching directory entries as each digit is entered (e.g., Internet telephones 16 of Fig. 1); means for selecting one of the matching directory entries (e.g., Internet telephones 16 of Fig. 1); and means for dialing the communication terminal corresponding to the selected entry (e.g., signaling servers 1 and 2 of Fig. 1). Support for independent claim 37 is found throughout the specification, and in particular, at pages 4-12 of the specification and in the Figures, as originally filed.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Issues

The following issues are on appeal:

A. Whether Claims 21-29 are properly rejected under 35 U.S.C. § 103(a) as being unpatentable over Mani (U.S. Patent Application No. 2002/0,186,832) in view of Waldman (U.S. Patent No. 5,274,693).

B. Whether Claims 30-36 are properly rejected under 35 U.S.C. § 103(a) as being unpatentable over Mani (U.S. Patent Application No. 2002/0,186,832) in view of Waldman (U.S. Patent No. 5,274,693).

C. Whether Claims 37-40 are properly rejected under 35 U.S.C. § 103(a) as being unpatentable over Mani (U.S. Patent Application No. 2002/0,186,832) in view of Waldman (U.S. Patent No. 5,274,693).

Grouping of Claims

Independent claim 21 is directed towards an apparatus for dialing a communication terminal and does not stand or fall with any other claim. Claims 22-29 all depend from the base claim 21 and add additional elements. The claims, unless noted below, do not stand or fall with any other claims because they contain additional features that further distinguish the subject matter from the cited

references.

Independent claim 30 is directed towards a method for dialing a communication terminal and does not stand or fall with any other claim. Claims 31-36 all depend from the base claim 30 and add additional elements. The claims, unless noted below, do not stand or fall with any other claims because they contain additional features that further distinguish the subject matter from the cited references.

Independent claim 37 is directed towards a system for dialing a communication terminal and does not stand or fall with any other claim. Claims 38-40 all depend from the base claim 37 and add additional elements. The claims, unless noted below, do not stand or fall with any other claims because they contain additional features that further distinguish the subject matter from the cited references.

VII. ARGUMENT

Overview of Claimed Invention

As defined in the independent claims, the present application relates to an apparatus, method, and system for dialing a communications terminal. The claimed invention is intended to operate as a user enters the digits of a communications terminal number (*e.g.* a telephone number). As each digit is entered, the partially completed number is compared with a plurality of directory entries and the subset of directory entries that match the partially completed number is displayed to the user. The user may select one of the subset or may continue to enter digits, thereby restricting the subset of matching entries. For the purposes of illustration only, and without limiting the scope of the claim language, the following operational example is provided:

A user may wish to call the telephone number 919-997-4453.

The user begins by entering the digit '9'. After entry of the digit '9', the following list of potential matching directory entries may be displayed:

910-567-1234
910-389-6350
910-390-7070
919-844-4085
919-991-2340
919-992-3584
919-952-4563
919-997-2250
919-997-4453

The user continues entering the desired telephone number by entering the digit '1'. After entry of the digit '1', the same list is displayed (since all entries in the previous subset contain the digit '1' in the second position):

910-567-1234
910-389-6350
910-390-7070
919-844-4085
919-991-2340
919-992-3584
919-952-4563
919-997-2250
919-997-4453

The user then enters the digit '9', such that the partially entered number is now '919'. The following list is displayed:

919-844-4085
919-991-2340
919-992-3584
919-952-4563
919-997-2250
919-997-4453

The user then enters the digit '9' again, to create the partially entered number '919 9'. As a result, the following list is displayed:

919-991-2340
919-992-3584
919-952-4563
919-997-2250
919-997-4453

The user may then enter '9' again, and the following list will be displayed:

919-991-2340
919-992-3584
919-997-2250
919-997-4453

Then the user enters the digit '7', such that the partially entered number is now '919 997'. The following list is displayed:

919-997-2250
919-997-4453

The user may then enter the digit '4' to narrow the selection to the only matching candidate. This number may then be dialed. It will be appreciated that the user may, at any point during the above sequence, select the desired number from the displayed list rather than continuing to enter digits.

As illustrated by the above non-limiting example, and as claimed in the independent claims, the present invention includes a dynamic comparison of a partially entered string with a plurality of directory entries as each digit of the string is entered. In other words, the invention performs a comparison of the partially entered string against the plurality of directory entries after entry of each digit.

Argument Regarding Rejections

The following tenets of patent law must be adhered to when applying 35 U.S.C. § 103: (a) the claimed invention must be considered as a whole; (b) the references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination; (c) the references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and (d) reasonable expectation of success is the standard with which obviousness is determined. M.P.E.P., 2141, 8th Ed., Latest Rev. Oct 2005 citing *Hodosh v. Block Drug Co., Inc.*, 786 F.2d 1136, 1143 (Fed. Cir. 1986).

The initial burden of establishing a *prima facie* case of obviousness lies with the Examiner. To establish a *prima facie* case of obviousness, there are three criteria to be met:

(i) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings;

(ii) there must be a reasonable expectation of success; and

(iii) the prior art reference (or references when combined) must teach or suggest all of the claim limitations.

A rejection under 35 U.S.C. § 103(a) that fails to meet these criteria is an improper rejection. For the reasons set forth below, the Appellant respectfully submits that the Examiner's rejection of claims 21-29 under 35 U.S.C. § 103(a) fails to establish a *prima facie* case of obviousness and should be withdrawn.

A. Whether Claims 21-29 are properly rejected under 35 U.S.C. § 103(a) as being unpatentable over Mani (U.S. Patent Application No. 2002/0,186,832) in view of Waldman (U.S. Patent No. 5,274,693).

Claim 21

i. Mani and Waldman, whether taken alone or in combination, fail to teach or suggest each and every feature of claim 21.

Claim 21 recites an apparatus for dialing a communication terminal. The apparatus comprises a memory storing a number of directory entries associated with a number of respective communication terminals. The apparatus comprises an input for entering a string of alphanumeric digits, **a comparator for comparing the string to the directory entries, as each digit is entered**, and a display for displaying directory entries matching the entered digits. The apparatus further includes a component for selecting one of the matched directory entries and a dialler for dialing the communication terminal associated with the selected directory entry.

On page 3 of the Office Action dated October 19, 2005, the Examiner first stated that the underlined portion above was mentioned in paragraph 0015 of Mani. Mani teaches a speed dialing service having a stored table of alphanumeric dialing codes associated with stored phone numbers. The service is implemented by a controller and database located at the local office switch. Subscribers provide phone numbers to the controller and associate the stored phone numbers with an alphanumeric code. The invention of Mani is analogous to the prior art described in the Background section of the present application at Paragraphs 0003 and 0004, which requires individual users to: (a) first store directory entries and associate each entry with a code; and (b) then recall the associated stored codes and dial speed dialing access codes before the stored codes when using the system. Mani's system only operates if a calling party accesses the speed dialing system at the local office switch and enters a complete alphanumeric code. The system then searches for a

matching entry in its database and dials the associated number if a match is found. An example is provided in paragraph [0025] of Mani.

It is clear from the many examples provided by Mani that the entire alphanumeric code must be entered before the system will attempt to match the alphanumeric code with the stored alphanumeric codes in its database (See, for example, Paragraphs 15, 19, 25, 28, 35, and 48). Moreover, it is clear than Mani teaches that the comparison between the entire alphanumeric code and the stored codes is implemented by way of a controller at the local office switch, and not at the user's communications terminal. Mani fails to teach or suggest an apparatus having a comparator for comparing the string, **as each digit is entered**, to the plurality of directory entries. Accordingly, this feature of claim 21 is not found in Mani.

In response to this argument, the Examiner states on page 2 of the Advisory Action dated January 6, 2006, that "Waldman teaches a display for displaying one or more matching directory entries as each digit is entered (i.e. keyed) [col. 4, lines 59-61; col. 12, lines 24-26]." With respect, the Appellant submits that this mischaracterizes the cited portions of Waldman. Waldman states, at col. 4, lines 59-61, "Fig. 17 is a diagram of a keypad according to this invention having one dedicated Finish Zero (FZ) key." Waldman states at Col. 12, lines 24-26, "The digit Counter counts the digits as they are entered keyed in on the keypad (71). The Digit Fill Module (72) detects a call as local or long-distance and accordingly determines the number of digits that will constitute a valid telephone number."

Waldman does not concern an apparatus for dialing a communication terminal, as claimed in claim 21. Waldman teaches no comparator. Waldman is incapable of comparing a string to a directory entry, since Waldman explicitly states that "the instant invention deals with enhanced abbreviated dialing of non-preprogrammed telephone numbers through the use of traditional system dialing resources, without forethought or prior use action, and with no 'permanent' or 'preprogrammed storage.'" (Column 2, lines 1-5) The portions of Waldman cited by

the Examiner relate to Waldman's teaching regarding "filling in" the last portion of a telephone number containing repeated digits. Nowhere does Waldman teach a comparator for comparing a string to a plurality of directory entries as each digit is entered.

The Examiner seems to rely on Waldman on the basis that Waldman teaches a display that displays digits as they are entered. In fact, Waldman simply displays the digits entered by the user dialing a telephone number. There is nothing significant in this teaching. Waldman does not teach a comparator for generating a list of possible matching directory entries as each digit is entered. Accordingly, Waldman's display cannot display a list of possible matching directory entries as each digit is entered. Waldman teaches nothing more than a typical mobile phone display.

Accordingly, Waldman fails to cure the deficiencies in the teachings of Mani. Waldman and Mani both fail to teach or suggest a comparator for comparing the string, as each digit is entered, to the plurality of directory entries.

Therefore, neither Mani nor Waldman, whether taken alone or in combination, teach or suggest each and every feature recited in claim 21. As a result, the Appellant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness and the rejection of claim 21 under 35 U.S.C. § 103(a) is improper and should be withdrawn.

ii. There is no motivation to modify or combine the teachings of Mani with the teachings of Waldman.

Page 3 of the Official Action, dated October 19, 2005, states, "At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the display of Waldman with Mani in order to provide a visual display of each digit as it is generated by the system to ensure the correct entry of a digit

[Waldman; col. 14, lines 59-61]." The cited portion of Waldman states, "A display screen and/or an audible tone would be provided to display and/or signal each digit as it is generated by the system." The Examiner's argument still fails to address the fact that, taken alone or in combination, neither Mani nor Waldman teach a comparator for comparing the string, as each digit is entered, to the plurality of directory entries. Accordingly, the Examiner has failed to establish that a person of ordinary skill in the art would be led to modify the teachings of these two references, if combined, to arrive at the invention claimed in the present application.

Moreover, Waldman teaches a mobile phone that has a dedicated digit or key for filling in the last few digits of a conventional phone number being entered by a user. Waldman does not teach any comparison of a partially entered phone number with a stored list of directory entries. He simply displays the phone number on the display as the user enters the digits. There is nothing significant in this teaching, and nothing in this teaching that would motivate a person of ordinary skill in the art to combine Waldman's ordinary mobile phone display with the system described in Mani. Nothing is achieved by way of this combination aside from showing the user the phone number they have entered.

The invention of Mani is designed to work with any conventional home telephone (see, for example, Paragraph 0018). As such, the invention of Mani is designed to work without a display, since many home telephones do not have displays. The Examiner has failed to provide any motivation as to why one of ordinary skill in the art would be motivated to modify the teachings of Mani by adding the pre-existing cellular phone display mentioned by Waldman to the conventional home telephone used by Mani. It is apparent from a thorough review of Mani that one skilled in the art would not be motivated to modify the teachings of Mani by adding the display mentioned by Waldman. The suggestion is illogical and is a clear application of hindsight on the part of the Examiner to attempt to reconstruct the teachings of the present invention using the available prior art references.

Even if the teachings of Mani were modified to include the display of Waldman, such an alteration of Mani's invention would require replacing all of the household phones to which the invention of Mani is applied, in order to achieve the display of Waldman. A thorough review of Mani clearly suggests that this is not the desired result of Mani's teachings. The teachings of Mani are intended to be applied to existing home telephones, with the invention of Mani being implemented within the local office switch of the telecommunications system 200 (Fig. 2).

Moreover, Waldman explicitly teaches away from the combination suggested by the Examiner. Waldman concerns an abbreviated dialing apparatus and method for cellular phones. In Column 2 at lines 1-5, Waldman states, "the instant invention deals with enhanced abbreviated dialing of non-preprogrammed telephone numbers through the use of traditional system dialing resources, without forethought or prior use action, and with no 'permanent' or 'preprogrammed storage.'" In explicit contrast to Waldman, Mani requires the use of pre-programmed storage, as shown by elements 504 and 508 of Fig. 5. Therefore, on a thorough review of the Mani and Waldman references, one of ordinary skill in the art would be discouraged from combining the teachings of Mani and Waldman. As a result, the Appellant respectfully submits that the Examiner has failed to establish that there is a suggestion or motivation to combine the references and/or modify their teachings so as to arrive at the invention claimed in claim 21. The Examiner has therefore failed to establish a *prima facie* case of obviousness, and the 35 U.S.C. § 103(a) rejection of claim 21 should be withdrawn.

Claims 22-29

Claims 22-29 are dependent on claim 21 and include all of the features of claim 21. Therefore, the rejections of claims 22-29 under 35 U.S.C. § 103(a) are improper for at least the reasons stated above with respect to claim 21.

Additionally, there are further reasons why claims 22-29 are not obvious over Mani in view of Waldman.

In some cases, the Examiner appears to apply impermissible hindsight to pick and choose various features from the Mani and Waldman references in response to the additional features recited by claims 22-29. In other cases, the Examiner cites various sections of Mani and Waldman that simply do not recite the features that the Examiner alleges.

For example, claim 24 recites the feature that the comparator includes a component for comparing the entered digits to the number for each of the directory entries and a component for comparing the entered digits to the digits mapped to the name for each of the directory entries. In the Official Action dated October 19, 2005, the Examiner simply states that the features "are shown above." In fact, there is no statement in the Official Action dated October 19, 2005, which purports to show a comparator including a component for comparing the entered digits to the number for each of the directory entries **and** a component for comparing the entered digits to the digits mapped to the name for each of the directory entries. As such, the Examiner has failed to provide a *prima facie* case for obviousness of claim 24. It is submitted that neither Mani nor Waldman teach or suggest the underlined feature shown above and that claim 24 is not obvious over Mani in view of Waldman.

Claim 29 recites that the communication terminal includes a handset and the component for dialing is responsive to the handset going off-hook. In the Official Action dated October 19, 2005, the Examiner stated that Mani teaches this feature at Paragraph 0006 and Figs. 4-5. A review of Paragraph 6 and Figs. 4-5 fails to reveal any support for this contention. In fact, the cited portions of Mani do not even mention a "handset." It is submitted that neither Mani nor Waldman teach or suggest the underlined feature shown above and that claim 29 is not obvious over Mani in view of Waldman.

B. Whether Claims 30-36 are properly rejected under 35 U.S.C. § 103(a) as being unpatentable over Mani (U.S. Patent Application No. 2002/0,186,832) in view of Waldman (U.S. Patent No. 5,274,693).

Claim 30

i. Mani and Waldman, whether taken alone or in combination, fail to teach or suggest each and every feature of claim 30.

Claim 30 recites a method for dialing a communication terminal. The method comprises the steps of storing a plurality of directory entries corresponding to a plurality of communication terminals; entering a string of alphanumeric digits corresponding to one of the plurality of communication terminals; comparing the string, as each digit is entered, to the plurality of directory entries; displaying one or more matching directory entries as each digit is entered; selecting one of the matching directory entries; and dialing the communication terminal corresponding to the selected entry.

On page 3 of the Office Action dated October 19, 2005, the Examiner first stated that the underlined portion above was mentioned in paragraph 0015 of Mani. Mani teaches a speed dialing service having a stored table of alphanumeric dialing codes associated with stored phone numbers. The service is implemented by a controller and database located at the local office switch. Subscribers provide phone numbers to the controller and associate the stored phone numbers with an alphanumeric code. The invention of Mani is analogous to the prior art described in the Background section of the present application at Paragraphs 0003 and 0004, which requires individual users to: (a) first store directory entries and associate each entry with a code; and (b) then recall the associated stored codes and dial speed dialing access codes before the stored codes when using the system. Mani's system only operates if a calling party accesses the speed dialing system at the local office

switch and enters a complete alphanumeric code. The system then searches for a matching entry in its database and dials the associated number if a match is found. An example is provided in paragraph [0025] of Mani.

It is clear from the many examples provided by Mani that the entire alphanumeric code must be entered before the system will attempt to match the alphanumeric code with the stored alphanumeric codes in its database (See, for example, Paragraphs 15, 19, 25, 28, 35, and 48). Moreover, it is clear than Mani teaches that the comparison between the entire alphanumeric code and the stored codes is implemented by way of a controller at the local office switch, and not at the user's communications terminal. Mani fails to teach or suggest a method having a step of comparing the string, **as each digit is entered**, to the plurality of directory entries. Accordingly, this feature of claim 30 is not found in Mani.

In response to this argument, the Examiner states on page 2 of the Advisory Action dated January 6, 2006, that "Waldman teaches a display for displaying one or more matching directory entries as each digit is entered (i.e. keyed) [col. 4, lines 59-61; col. 12, lines 24-26]." With respect, the Appellant submits that this mischaracterizes the cited portions of Waldman. Waldman states, at col. 4, lines 59-61, "Fig. 17 is a diagram of a keypad according to this invention having one dedicated Finish Zero (FZ) key." Waldman states at Col. 12, lines 24-26, "The digit Counter counts the digits as they are entered keyed in on the keypad (71). The Digit Fill Module (72) detects a call as local or long-distance and accordingly determines the number of digits that will constitute a valid telephone number."

Waldman does not concern a method for dialing a communication terminal, as claimed in claim 30. Waldman teaches no comparison step. Waldman is incapable of comparing a string to a directory entry, since Waldman explicitly states that "the instant invention deals with enhanced abbreviated dialing of non-preprogrammed telephone numbers through the use of traditional system dialing resources, without forethought or prior use action, and with no 'permanent' or 'preprogrammed

storage.'" (Column 2, lines 1-5) The portions of Waldman cited by the Examiner relate to Waldman's teaching regarding "filling in" the last portion of a telephone number containing repeated digits. Nowhere does Waldman teach a step of comparing a string to a plurality of directory entries as each digit is entered.

The Examiner seems to rely on Waldman on the basis that Waldman teaches a display that displays digits as they are entered. In fact, Waldman simply displays the digits entered by the user dialing a telephone number. There is nothing significant in this teaching. Waldman does not teach a comparator for generating a list of possible matching directory entries as each digit is entered. Accordingly, Waldman's display cannot display a list of possible matching directory entries as each digit is entered. Waldman teaches nothing more than a typical mobile phone display.

Accordingly, Waldman fails to cure the deficiencies in the teachings of Mani. Waldman and Mani both fail to teach or suggest a step of comparing the string, as each digit is entered, to the plurality of directory entries.

Therefore, neither Mani nor Waldman, whether taken alone or in combination, teach or suggest each and every feature recited in claim 30. As a result, the Appellant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness and the rejection of claim 21 under 35 U.S.C. § 103(a) is improper and should be withdrawn.

ii. There is no motivation to modify or combine the teachings of Mani with the teachings of Waldman.

Page 3 of the Official Action, dated October 19, 2005, states, "At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the display of Waldman with Mani in order to provide a visual display of each digit as it is generated by the system to ensure the correct entry of a digit

[Waldman; col. 14, lines 59-61]." The cited portion of Waldman states, "A display screen and/or an audible tone would be provided to display and/or signal each digit as it is generated by the system." The Examiner's argument still fails to address the fact that, taken alone or in combination, neither Mani nor Waldman teach a step of comparing the string, as each digit is entered, to the plurality of directory entries. Accordingly, the Examiner has failed to establish that a person of ordinary skill in the art would be led to modify the teachings of these two references, if combined, to arrive at the invention claimed in the present application.

Moreover, Waldman teaches a mobile phone that has a dedicated digit or key for filling in the last few digits of a conventional phone number being entered by a user. Waldman does not teach any comparison of a partially entered phone number with a stored list of directory entries. He simply displays the phone number on the display as the user enters the digits. There is nothing significant in this teaching, and nothing in this teaching that would motivate a person of ordinary skill in the art to combine Waldman's ordinary mobile phone display with the system described in Mani. Nothing is achieved by way of this combination aside from showing the user the phone number they have entered.

The invention of Mani is designed to work with any conventional home telephone (see, for example, Paragraph 0018). As such, the invention of Mani is designed to work without a display, since many home telephones do not have displays. The Examiner has failed to provide any motivation as to why one of ordinary skill in the art would be motivated to modify the teachings of Mani by adding the pre-existing cellular phone display mentioned by Waldman to the conventional home telephone used by Mani in order to provide for the claimed "displaying" step. It is apparent from a thorough review of Mani that one skilled in the art would not be motivated to modify the teachings of Mani by adding the display mentioned by Waldman. The suggestion is illogical and is a clear application of hindsight on the part of the Examiner to attempt to reconstruct the teachings of the present invention using the available prior art references.

Even if the teachings of Mani were modified to include the display of Waldman, such an alteration of Mani's invention would require replacing all of the household phones to which the invention of Mani is applied, in order to achieve the display of Waldman. A thorough review of Mani clearly suggests that this is not the desired result of Mani's teachings. The teachings of Mani are intended to be applied to existing home telephones, with the invention of Mani being implemented within the local office switch of the telecommunications system 200 (Fig. 2).

Moreover, Waldman explicitly teaches away from the combination suggested by the Examiner. Waldman concerns an abbreviated dialing apparatus and method for cellular phones. In Column 2 at lines 1-5, Waldman states, "the instant invention deals with enhanced abbreviated dialing of non-preprogrammed telephone numbers through the use of traditional system dialing resources, without forethought or prior use action, and with no 'permanent' or 'preprogrammed storage.'" In explicit contrast to Waldman, Mani requires the use of pre-programmed storage, as shown by elements 504 and 508 of Fig. 5. Therefore, on a thorough review of the Mani and Waldman references, one of ordinary skill in the art would be discouraged from combining the teachings of Mani and Waldman. As a result, the Appellant respectfully submits that the Examiner has failed to establish that there is a suggestion or motivation to combine the references and/or modify their teachings so as to arrive at the invention claimed in claim 30. The Examiner has therefore failed to establish a *prima facie* case of obviousness, and the 35 U.S.C. § 103(a) rejection of claim 30 should be withdrawn.

Claims 31-36

Claims 31-36 are dependent on claim 30 and include all of the features of claim 30. Therefore, the rejections of claims 31-36 under 35 U.S.C. § 103(a) are improper for at least the reasons stated above with respect to claim 30. Additionally, there are further reasons why claims 31-36 are not obvious over Mani

in view of Waldman.

In some cases, the Examiner appears to apply impermissible hindsight to pick and choose various features from the Mani and Waldman references in response to the additional features recited by claims 31-36. In other cases, the Examiner cites various sections of Mani and Waldman that simply do not recite the features that the Examiner alleges.

For example, claim 35 recites that the step of comparing includes comparing the entered digits to the number for each of the entries **and** comparing the entered digits to the digits mapped to the name for each of the entries. In the Official Action dated October 19, 2005, the Examiner simply states that the features "are shown above." In fact, there is no statement in the Official Action dated October 19, 2005, which purports to show that the step of comparing includes comparing the entered digits to the number for each of the entries **and** comparing the entered digits to the digits mapped to the name for each of the entries. As such, the Examiner has failed to provide a *prima facie* case for obviousness of claim 35. It is submitted that neither Mani nor Waldman teach or suggest the underlined feature shown above and that claim 35 is not obvious over Mani in view of Waldman.

Claim 36 recites that the step of dialing is responsive to an off-hook state in the communication terminal. In the Official Action dated October 19, 2005, the Examiner stated that Mani teaches this feature at Paragraph 0006 and Figs. 4-5. A review of Paragraph 6 and Figs. 4-5 fails to reveal any support for this contention. In fact, the cited portions of Mani do not even mention a "handset." It is submitted that neither Mani nor Waldman teach or suggest the underlined feature shown above and that claim 36 is not obvious over Mani in view of Waldman.

C. Whether Claims 37-40 are properly rejected under 35 U.S.C. § 103(a) as being unpatentable over Mani (U.S. Patent Application No. 2002/0,186,832) in view of Waldman (U.S. Patent No. 5,274,693).

Claim 37

i. Mani and Waldman, whether taken alone or in combination, fail to teach or suggest each and every feature of claim 37.

Claim 37 recites a system for dialing a communication terminal. The system comprises means for storing a plurality of directory entries corresponding to a plurality of communication terminals; means for inputting a string of alphanumeric digits corresponding to one of the plurality of communication terminals; means for comparing the string, as each digit is entered, to the plurality of directory entries; means for displaying one or more matching directory entries as each digit is entered; means for selecting one of the matching directory entries; and means for dialing the communication terminal corresponding to the selected entry.

On page 3 of the Office Action dated October 19, 2005, the Examiner first stated that the underlined portion above was mentioned in paragraph 0015 of Mani. Mani teaches a speed dialing service having a stored table of alphanumeric dialing codes associated with stored phone numbers. The service is implemented by a controller and database located at the local office switch. Subscribers provide phone numbers to the controller and associate the stored phone numbers with an alphanumeric code. The invention of Mani is analogous to the prior art described in the Background section of the present application at Paragraphs 0003 and 0004, which requires individual users to: (a) first store directory entries and associate each entry with a code; and (b) then recall the associated stored codes and dial speed dialing access codes before the stored codes when using the system. Mani's system only operates if a calling party accesses the speed dialing system at the local office

switch and enters a complete alphanumeric code. The system then searches for a matching entry in its database and dials the associated number if a match is found. An example is provided in paragraph [0025] of Mani.

It is clear from the many examples provided by Mani that the entire alphanumeric code must be entered before the system will attempt to match the alphanumeric code with the stored alphanumeric codes in its database (See, for example, Paragraphs 15, 19, 25, 28, 35, and 48). Moreover, it is clear than Mani teaches that the comparison between the entire alphanumeric code and the stored codes is implemented by way of a controller at the local office switch, and not at the user's communications terminal. Mani fails to teach or suggest an system having means for comparing the string, **as each digit is entered**, to the plurality of directory entries. Accordingly, this feature of claim 37 is not found in Mani.

In response to this argument, the Examiner states on page 2 of the Advisory Action dated January 6, 2006, that "Waldman teaches a display for displaying one or more matching directory entries as each digit is entered (i.e. keyed) [col. 4, lines 59-61; col. 12, lines 24-26]." With respect, the Appellant submits that this mischaracterizes the cited portions of Waldman. Waldman states, at col. 4, lines 59-61, "Fig. 17 is a diagram of a keypad according to this invention having one dedicated Finish Zero (FZ) key." Waldman states at Col. 12, lines 24-26, "The digit Counter counts the digits as they are entered keyed in on the keypad (71). The Digit Fill Module (72) detects a call as local or long-distance and accordingly determines the number of digits that will constitute a valid telephone number."

Waldman does not concern an apparatus for dialing a communication terminal, as claimed in claim 21. Waldman teaches no comparator. Waldman is incapable of comparing a string to a directory entry, since Waldman explicitly states that "the instant invention deals with enhanced abbreviated dialing of non-preprogrammed telephone numbers through the use of traditional system dialing resources, without forethought or prior use action, and with no 'permanent' or

'preprogrammed storage.'" (Column 2, lines 1-5) The portions of Waldman cited by the Examiner relate to Waldman's teaching regarding "filling in" the last portion of a telephone number containing repeated digits. Nowhere does Waldman teach means for comparing a string to a plurality of directory entries as each digit is entered.

The Examiner seems to rely on Waldman on the basis that Waldman teaches a display that displays digits as they are entered. In fact, Waldman simply displays the digits entered by the user dialing a telephone number. There is nothing significant in this teaching. Waldman does not teach a comparator for generating a list of possible matching directory entries as each digit is entered. Accordingly, Waldman's display cannot display a list of possible matching directory entries as each digit is entered. Waldman teaches nothing more than a typical mobile phone display.

Accordingly, Waldman fails to cure the deficiencies in the teachings of Mani. Waldman and Mani both fail to teach or suggest means for comparing the string, as each digit is entered, to the plurality of directory entries.

Therefore, neither Mani nor Waldman, whether taken alone or in combination, teach or suggest each and every feature recited in claim 37. As a result, the Appellant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness and the rejection of claim 37 under 35 U.S.C. § 103(a) is improper and should be withdrawn.

ii. There is no motivation to modify or combine the teachings of Mani with the teachings of Waldman.

Page 3 of the Official Action, dated October 19, 2005, states, "At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the display of Waldman with Mani in order to provide a visual display of each digit as it is generated by the system to ensure the correct entry of a digit

[Waldman; col. 14, lines 59-61]." The cited portion of Waldman states, "A display screen and/or an audible tone would be provided to display and/or signal each digit as it is generated by the system." The Examiner's argument still fails to address the fact that, taken alone or in combination, neither Mani nor Waldman teach means for comparing the string, as each digit is entered, to the plurality of directory entries. Accordingly, the Examiner has failed to establish that a person of ordinary skill in the art would be led to modify the teachings of these two references, if combined, to arrive at the invention claimed in the present application.

Moreover, Waldman teaches a mobile phone that has a dedicated digit or key for filling in the last few digits of a conventional phone number being entered by a user. Waldman does not teach any comparison of a partially entered phone number with a stored list of directory entries. He simply displays the phone number on the display as the user enters the digits. There is nothing significant in this teaching, and nothing in this teaching that would motivate a person of ordinary skill in the art to combine Waldman's ordinary mobile phone display with the system described in Mani. Nothing is achieved by way of this combination aside from showing the user the phone number they have entered.

The invention of Mani is designed to work with any conventional home telephone (see, for example, Paragraph 0018). As such, the invention of Mani is designed to work without a display, since many home telephones do not have displays. The Examiner has failed to provide any motivation as to why one of ordinary skill in the art would be motivated to modify the teachings of Mani by adding the pre-existing cellular phone display mentioned by Waldman to the conventional home telephone used by Mani. It is apparent from a thorough review of Mani that one skilled in the art would not be motivated to modify the teachings of Mani by adding the display mentioned by Waldman. The suggestion is illogical and is a clear application of hindsight on the part of the Examiner to attempt to reconstruct the teachings of the present invention using the available prior art references.

Even if the teachings of Mani were modified to include the display of Waldman, such an alteration of Mani's invention would require replacing all of the household phones to which the invention of Mani is applied, in order to achieve the display of Waldman. A thorough review of Mani clearly suggests that this is not the desired result of Mani's teachings. The teachings of Mani are intended to be applied to existing home telephones, with the invention of Mani being implemented within the local office switch of the telecommunications system 200 (Fig. 2).

Moreover, Waldman explicitly teaches away from the combination suggested by the Examiner. Waldman concerns an abbreviated dialing apparatus and method for cellular phones. In Column 2 at lines 1-5, Waldman states, "the instant invention deals with enhanced abbreviated dialing of non-preprogrammed telephone numbers through the use of traditional system dialing resources, without forethought or prior use action, and with no 'permanent' or 'preprogrammed storage.'" In explicit contrast to Waldman, Mani requires the use of pre-programmed storage, as shown by elements 504 and 508 of Fig. 5. Therefore, on a thorough review of the Mani and Waldman references, one of ordinary skill in the art would be discouraged from combining the teachings of Mani and Waldman. As a result, the Appellant respectfully submits that the Examiner has failed to establish that there is a suggestion or motivation to combine the references and/or modify their teachings so as to arrive at the invention claimed in claim 21. The Examiner has therefore failed to establish a *prima facie* case of obviousness, and the 35 U.S.C. § 103(a) rejection of claim 21 should be withdrawn.

Claims 38-40

Claims 38-40 are dependent on claim 37 and include all of the features of claim 37. Therefore, the rejections of claims 38-40 under 35 U.S.C. § 103(a) are improper for at least the reasons stated above with respect to claim 37. Additionally, there are further reasons why claims 38-40 are not obvious over Mani

in view of Waldman.

In some cases, the Examiner appears to apply impermissible hindsight to pick and choose various features from the Mani and Waldman references in response to the additional features recited by claims 38-40. In other cases, the Examiner cites various sections of Mani and Waldman that simply do not recite the features that the Examiner alleges.

For example, claim 40 recites the feature that the means for comparing includes means for comparing the inputted digits to the number for each of the entries **and** means for comparing the inputted digits to the digits mapped to the name for each of the entries. In the Official Action dated October 19, 2005, the Examiner simply states that the features "are shown above." In fact, there is no statement in the Official Action dated October 19, 2005, which purports to show means for comparing including means for comparing the inputted digits to the number for each of the entries **and** means for comparing the inputted digits to the digits mapped to the name for each of the entries. As such, the Examiner has failed to provide a *prima facie* case for obviousness of claim 40. It is submitted that neither Mani nor Waldman teach or suggest the underlined feature shown above and that claim 40 is not obvious over Mani in view of Waldman.

D. Conclusion

In conclusion, the Examiner's rejections under 35 U.S.C. § 103(a) fail to establish a *prima facie* case of obviousness. The rejections are therefore improper and the Appellant respectfully requests that the Board reverse the Examiner's obviousness rejections of claims 21-40.

Respectfully submitted,

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CLAIMS APPENDIX

21. (Original) An apparatus for dialing a communication terminal comprising:

a memory for storing a plurality of directory entries corresponding to a plurality of communication terminals;

an input for entering a string of alphanumeric digits corresponding to one of said plurality of communication terminals;

a comparator for comparing said string, as each digit is entered, to the plurality of directory entries;

a display for displaying one or more matching directory entries as each digit is entered;

a selector component for selecting one of said matching directory entries; and

a dialer component for dialing the communication terminal corresponding to said selected entry.

22. (Original) The apparatus as claimed in claim 21, further including a counter for counting the digits entered, and said comparator being responsive to said counter when a pre-determined number of digits is entered.

23. (Original) The apparatus as claimed in claim 22, wherein said directory entries comprise a number and a name, said name being mapped to digits.

24. (Original) The apparatus as claimed in claim 23, wherein said comparator includes a component for comparing said entered digits to the number for each of said directory entries and a component for comparing said entered digits to the digits mapped to the name for each of said directory entries.

25. (Original) The apparatus as claimed in claim 24, wherein said additional entry comprises another digit entered using said input.

26. (Original) The apparatus as claimed in claim 25, wherein said additional entry comprises a navigational key entry.

27. (Original) The apparatus as claimed in claim 25, wherein said component for selecting comprises a navigational key.

28. (Original) The apparatus as claimed in claim 23, wherein the communication terminal includes one or more line keys, and said component for dialing is responsive to one of the line keys being selected.

29. (Original) The apparatus as claimed in claim 22, wherein the communication terminal includes a handset, and said component for dialing is responsive to said handset going off-hook.

30. (Original) A method for dialing a communication terminal comprising:

storing a plurality of directory entries corresponding to a plurality of communication terminals;

entering a string of alphanumeric digits corresponding to one of said plurality of communication terminals;

comparing said string, as each digit is entered, to the plurality of director entries;

displaying one or more matching directory entries as each digit is entered;

selecting one of said matching directory entries; and

dialing the communication terminal corresponding to said selected entry.

31. (Original) The method as claimed in claim 30, further including the step of counting the digits received, and said step of comparing said entered digits being performed when a pre-determined number of digits are received.

32. (Original) The method as claimed in claim 31, wherein said additional input is provided by a navigational input.

33. (Original) The method as claimed in claim 31, wherein said additional input comprises one or more digits entered by a user, and said additional digits result in a single entry matching the digits entered by the user.

34. (Original) The method as claimed in claim 33, wherein said entries comprise a number and a name, said name being mapped to digits on a key pad.

35. (Original) The method as claimed in claim 34, wherein said step of comparing includes comparing said entered digits to the number for each of said entries and comparing said entered digits to the digits mapped to the name for each of said entries.

36. (Original) The method as claimed in claim 35, wherein said step of dialing is responsive to an off-hook state in the communication terminal.

37. (Original) A system for dialing a communication terminal comprising:

means for storing a plurality of directory entries corresponding to a plurality of communication terminals;

means for inputting a string of alphanumeric digits corresponding to one of said plurality of communication terminals;

means for comparing said string, as each digit is entered, to said plurality of directory entries;

means for displaying one or more matching directory entries as each digit is entered;

means for selecting one of said matching directory entries; and

means for dialing the communication terminal corresponding to said selected entry.

38. (Original) The system as claimed in claim 37, further including means for counting the digits inputted, and said means for comparing being responsive to

said means for counting for comparing said inputted digits when a pre-determined count is reached.

39. (Original) The system as claimed in claim 38, wherein said entries comprise a number and a name, said name being mapped to digits on a key pad.

40. (Original) The system as claimed in claim 39, wherein said means for comparing includes means for comparing said inputted digits to said number for each of said entries and means for comparing said inputted digits to the digits mapped to said name for each of said entries.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.